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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 511,943	02/24/2000	Teng Xu	2000B009	5173

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EXAMINER

YILDIRIM, BEKIR L

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 06/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/511,943

Applicant(s)

XU ET AL.

Examiner

Bekir L. YILDIRIM

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 18 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as obvious over Sun et al. (USP 6,051,746).

Sun et al. teaches a process for converting oxygenated organic material, to olefins using small pore molecular sieve catalysts. The improved yield slate is achieved by treating the small pore molecular sieve catalyst with a modifier selected from the group consisting of polynuclear aromatic heterocyclic compounds. Examples of suitable small pore MeAPSOs and MeAPO'S include, but are not necessarily limited to SAPO's and alumino phospho oxides comprising preferably in the range of from about 0.005 to about 0.05 moles of a metal selected from the group consisting of magnesium, zinc, iron, cobalt, nickel, manganese, chromium, and mixtures thereof. Preferred molecular sieve catalysts are SAPOs, such as SAPO-34, SAPO 17, SAPO-18, SAPO-43, and SAPO-44. (col. 2, lines 8 -68).

The modifier may be adsorbed onto the catalyst prior to the introduction of the feed using any suitable means. In one embodiment, a solution of the desired modifier is first made by dissolving a desired amount of the modifier in a solvent under mild conditions. The temperature of mixing is dependent upon the solubility of the modifier in

the solvent selected. In an example the contact temperature is 60 0C, and oxygenate conversion reaction temperature is 450 C (col. 6, lines 45-68).

It is acknowledged that the reference does not recite that contact with the modifier is for the formation of the "integrated hydrocarbon co-catalyst within the porous framework" *per se*.

The invention as a whole would have been obvious to one having ordinary skill in the art because given that the reference also performs the only step the applicant performs prior to the conversion step, it would be expected to produce the same effect, i.e. the incorporation inside the porous framework of the modifier or co-catalyst. See for example, *Ex parte Cordova*, 10 USPQ2d 1949 (BdPatApp&Int 1987) where it is opined that "Since Login contemplates the use of "many types of synthetic fibers" (column 6, line 54), it would appear reasonable to conclude that Login embraces or would have suggested fibers satisfying the requirements of various dependent claims such as claims 16 through 20. Furthermore, it would appear reasonable to conclude that the amount of solids pickup satisfies the requirements of dependent claims 7 through 18. The Patent and Trademark Office does not have the requisite facilities to conduct laboratory testing to ascertain the degree of solids pickup in Login's process. However, since the disclosed process is similar to that claimed, and since the function performed by Login's alkyd resin is similar to that of the appealed claims, i.e., increasing adhesion between the filaments 1, it would appear reasonable to conclude that the amount of solids pickup in Login's process satisfies the requirements of the above-noted claims. In *re King*, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986)". See also *In re Spada*, 15

Art Unit: 1764

USPQ2d 1655 (CA FC 1990) wherein it is stated that "However, when the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not. In re King, 801 F.2d 1324, 1327, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Ludtke, 441 F.2d 660, 664, 169 USPQ 563, 566 (CCPA 1971)". As a last note, a fair reading of Sun et al as a whole would lead one to believe that, the inventors therein, are also intending to modify the catalyst's porous framework structure from inside.

***Response to Arguments***

3. Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

4. The declaration under 37 CFR 1.132 filed on 4/18/2002 is sufficient to overcome the rejection of claims 1-16 based upon Kaiser and Brown references, hence the withdrawal of the rejections.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bekir L. YILDIRIM whose telephone number is (703) 308-3586. The examiner can normally be reached on 10:30-8 00 (alternating Mondays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (703) 308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 872-9467 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0611.

BLY  
June 24, 2003

